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ABSTRACT

Public school ratings of the importance of subject-matter test objectives associated with teacher certification tests were examined by means of a job-analysis survey conducted in 1986 and a similar survey conducted in 1993. It was predicted that there would be a high degree of change in the importance ratings assigned to these test objectives reflecting the curriculum changes that had taken place over this 7 year period. Objectives examined were those of the Illinois Certification Testing System Surveys, which were sent to over 13,000 public school educators in 1986 (82% response rate) and approximately 9,000 educators in 1993 (77% response rate). The job-analysis results, contrary to expectation, suggest that the body of knowledge that classroom teachers deem important for teachers to know to perform effectively may not change as rapidly as might be expected, and that teachers may not change their priorities and incorporate new recommendations promptly. The study further suggests that there may be, within each subject-matter field, core knowledge that educators think is valuable for the student to learn, even in the face of continually involving instructional methodology that is characteristic of each subject-matter discipline. Test objectives are likely to reflect this core knowledge. One table lists rated objectives. (Contains 6 references.) (SLD)

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Introduction

During the past decade there has been a significant amount of activity occurring in the public schools in terms of reexamining the goals, content, and instructional methodology of the curriculum of the primary academic subject-matter areas. Virtually no content discipline has ignored the call to examine and revise the focus of public school instruction. The results of these reviews, that have typically been directed by national and state curriculum organizations, have led to comprehensive changes in the way that educators believe that the various subject areas should be organized and taught (Lloyd-Jones and Lunsford, 1989; Elbow, 1990; National Council of Teachers of Mathematics, 1989; Rutherford and Ahlgren, 1989; Seixas, 1993). Given these curriculum reforms, one might expect that public school educators would have different perspectives on the importance of various elements of the curriculum in the early 1990s as opposed to their perspectives in the mid-1980s. In this investigation, public school ratings of the importance subject-matter test objectives associated with teacher certification tests were examined by means by means of a job analysis survey conducted in 1986 and from a similar survey conducted in 1993. It was predicted that there would be a high degree of change in the importance ratings assigned to these test objectives reflecting the curriculum changes that had taken place over this seven year period.

The Illinois Certification Testing System (ICTS)

In 1986, the Illinois State Board of Education (ISBE), as part of a legislative initiative to improve educational quality, began with the development of 53 teacher, administrator, and pupil personnel service certification tests and a test of basic skills. Throughout the test development process, continuous efforts were made to involve Illinois public school educators and teacher educators in test domain and objective development, job analysis, item review, content validation, and standard setting activities.

As part of initial test development in 1986, a set of test objectives for each test field that had been previously reviewed by committees of Illinois educators, were distributed to thousands of additional Illinois public school educators and college faculty involved in teacher preparation (Silvestro, Clayton, and Glenn, 1989). In 1993, the ISBE decided that as part of the test updating process for each test field, a job analysis survey would be conducted for all test objectives, similar to the job analysis survey that was conducted in 1986. The data from this survey could then be used to determine the degree to which existing test objectives would need to be modified.

Job Analysis Survey Methodology

While the job analysis surveys that were developed and administered in 1986 and in 1993 were distributed to Illinois public school educators and to college faculty involved in the preparation of teaching certification candidates, for the current investigation, the focus will be on the

survey methodology used for public school educators. The survey methodology was identical for 1986 and 1993.

Job analysis survey form. The first section of the survey form requested educator demographic information, including teaching certification(s) held, level of education completed, ethnic and racial background, years of professional experience, and the grade level(s) at which they were currently working.

The second section of the survey form requested educators to rate the importance of all of the 40 to 60 content knowledge objectives for their field. These objectives had been previously reviewed, revised, and approved by committees of Illinois public school educators and teacher educators. The actual wording of the importance rating stimulus for each test objective was as follows:

> **IMPORTANCE:** Rate the importance of the content of this objective to the job of an educator in this field in Illinois.
>
> 1 = no importance
> 2 = little importance
> 3 = moderate importance
> 4 = great importance
> 5 = very great importance

In addition to the objective importance rating, public school educators were also asked to indicate the primary reason why they assigned a "no importance" rating to any objective. They were also asked to indicate the amount of time they spent teaching or using the content of each objective during the school year.

Distribution of surveys. Several steps were used in the identification and selection of job analysis survey participants. For public school educators, a data tape was provided by the Illinois State Board of Education. The data tape was derived from the ISBE Teacher Service Record, which listed all certified and practicing public school educators in each certification field. From this listing, a stratified random sample of educators was selected for the job analysis survey for each field. Survey materials were provided to school district superintendents, or building principals (Chicago only), who in turn distributed the materials to selected public school educators. Surveys were sent to over 13,000 public school educators in 1986 and to approximately 9,000 educators in 1993.

Survey response rates. The overall public school educator response rates for the job analysis survey was 82 percent for the 1986 survey and 77 percent for 1993.

Results

While the job analysis surveys were conducted for all 53 ICTS subject-matter fields, the following fields were selected for specific study of the consistency of objective importance ratings by public school educators from 1986 to 1993.

Elementary	English
Learning Disabilities	Mathematics
Guidance	General Science
General Administration	Music (K-12)
History	Physical Education (K-12)

These fields were selected for two important reasons. First, they represent teacher certification fields with large populations of educators in Illinois. Second, they represent a broad spectrum of disciplines including elementary education, special education, the humanities, sciences, pupil personnel services, and school administration.

For the mean objective importance ratings for each objective for each of the 10 fields studied, t-tests were computed. The following table summarizes significant objective importance ratings changes by test field from 1986 to 1993.

FIELD	N OF OBJECTIVES RATED	N OF SIGNIFICANT OBJ. RATING CHANGES
Elementary	57	7
Learning Disabilities	42	2
Guidance	53	6
General Administrative	40	5
History	56	3
English	46	8
Mathematics	48	12
General Science	56	1
Music (K-12)	42	2
Physical Education (K-12)	48	19

Overall, there was a high degree of consistency in the importance ratings assigned to the test objectives by public school educators across the 10 test fields. With the exception of Mathematics (25 percent of objective ratings changed) and Physical Education (40 percent), the remaining fields had minimal changes in objective importance ratings over the seven year period between the two job analysis surveys. Where the objective ratings did change significantly, 37 of the objectives were rated higher in 1993 and 28 were rated higher in 1986.

In examining specific objective importance ratings changes by test field, there were no clear patterns in terms of the changes being confined to particular test subareas or content knowledge domains for eight of the 10 fields. For Mathematics, four objectives from the test subarea "Basic Mathematical Principles and Applications" were given higher importance ratings in 1993. For Physical Education, two test subareas had a number of objectives with importance ratings changes. For the test subarea "Physical Fitness", six of the seven test objectives were rated higher in 1993 than in 1986. For the test subarea "Motor Skill Acquisition", nine of 21 test objectives were rated higher in 1993 than in 1986.

Discussion

The results of this study, while contrary to expectations, are important for a number of reasons. First, the study suggests that the body of knowledge that classroom teachers deem to be important for teachers to know in order to perform effectively on the job, may not change as rapidly as one might expect from reading the literature on changes in the public school curriculum. Second, the study suggests that there may be, within each subject-matter field, core knowledge that educators hold to be valuable for student to learn, even in the face of continually evolving instructional methodology that is characteristic of each subject-matter discipline. Since the ICTS program does focus on the knowledge needed by *entry-level* educators to perform on the job, the test objectives are likely to reflect the core knowledge. Third, from a somewhat negative perspective, the results of this study may suggest that educators are reluctant to modify their content knowledge priorities for students and to incorporate into their teaching, new priorities suggested by national curriculum associations and other agents of educational change.

The Illinois State Board of Education has embarked on an extensive program of ICTS test review and updating. It will be interesting to note the degree to which content advisory committees, which include Illinois teachers and teacher educators for each subject-matter field, seek to make changes in the objectives that currently serve as the basis of each assessment.

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